

10/25

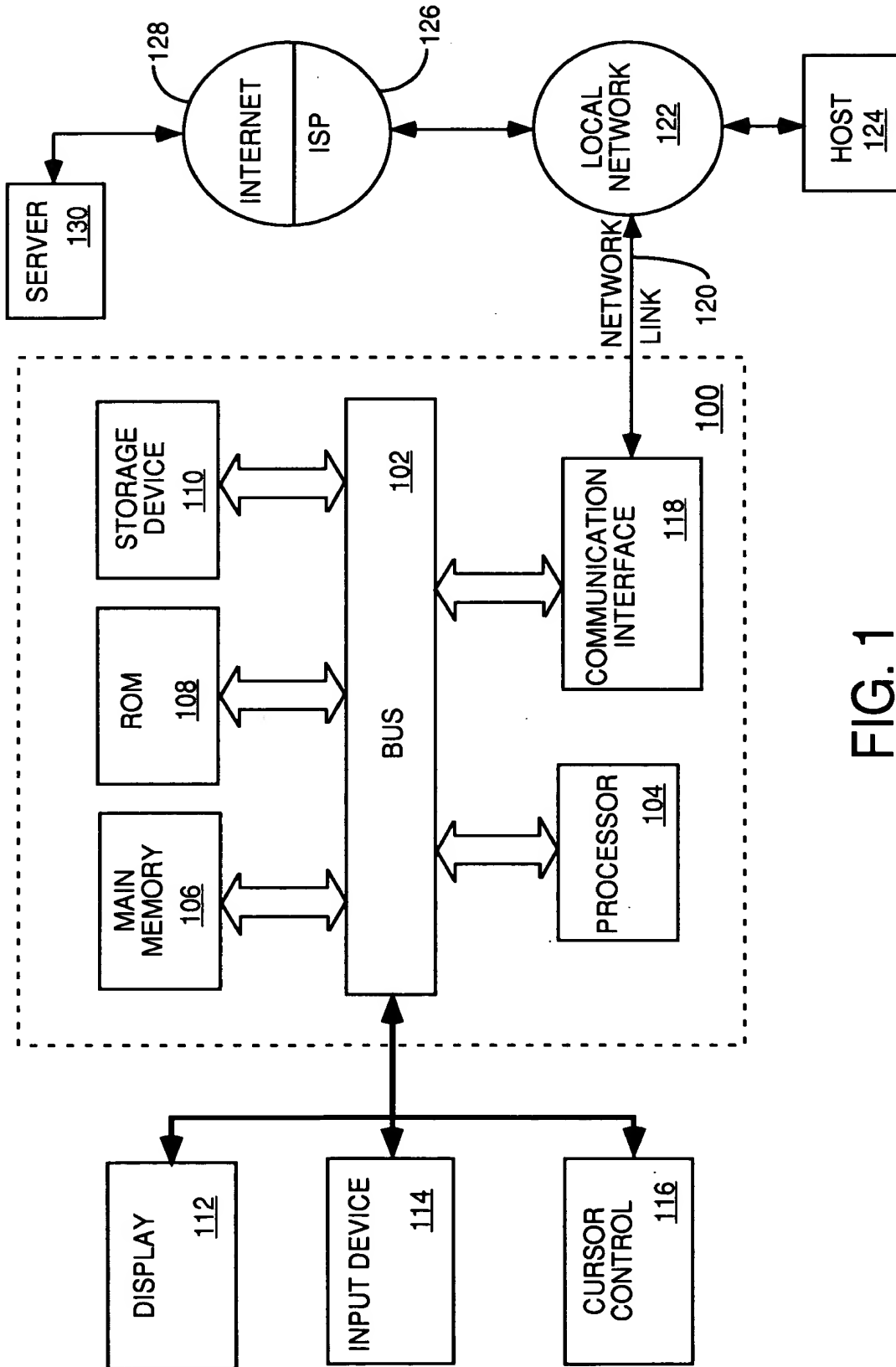


FIG. 1

FIG. 1 of 2

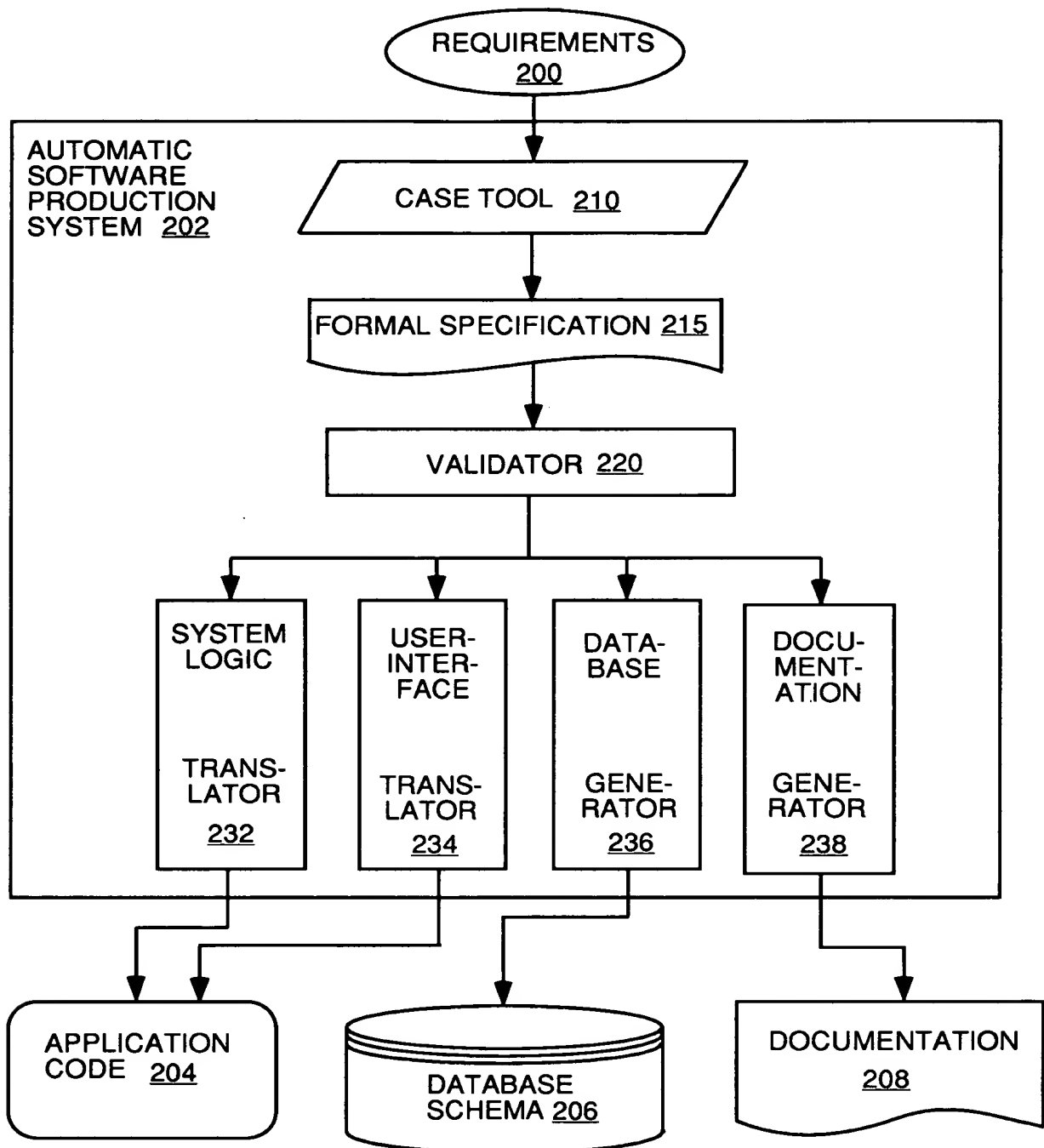


FIG. 2

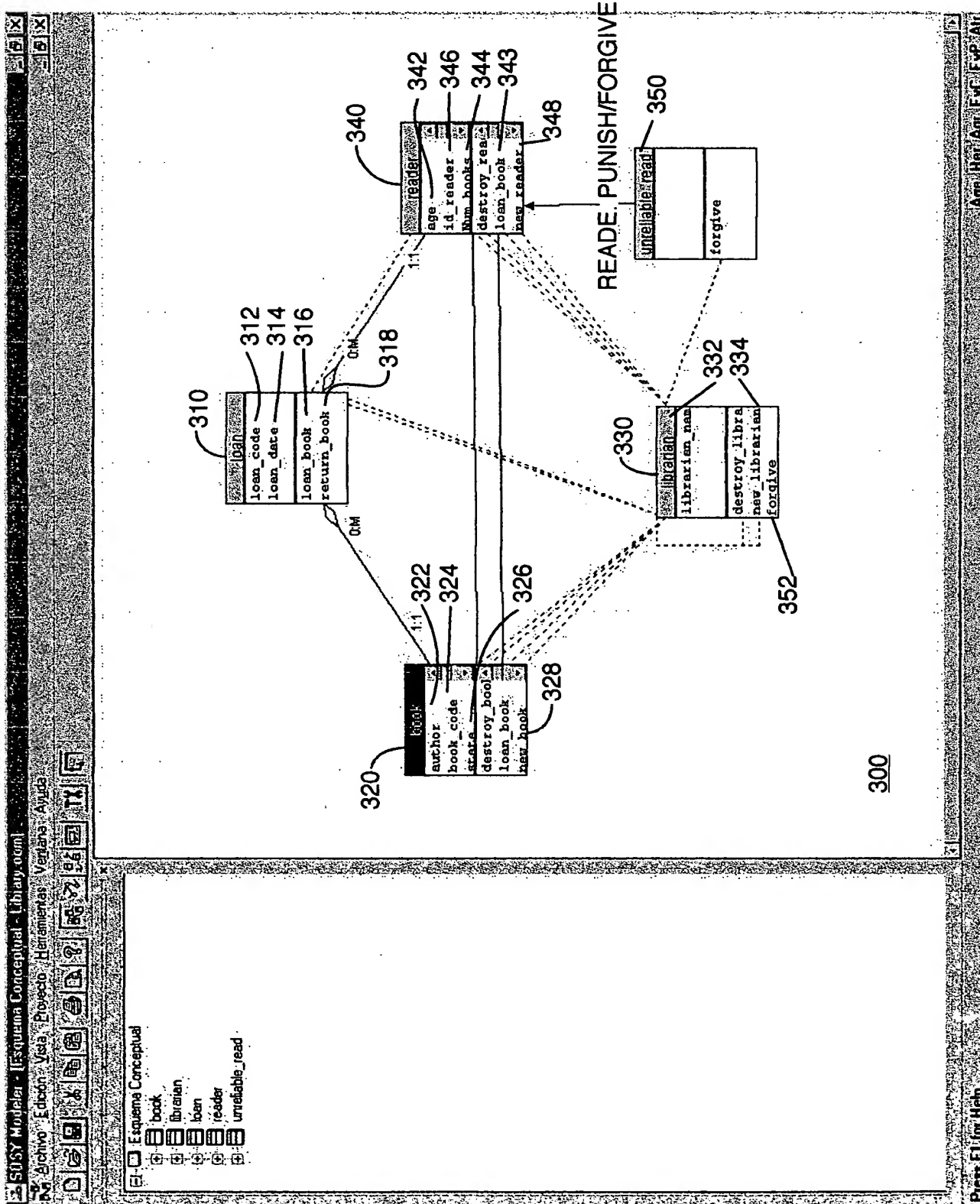
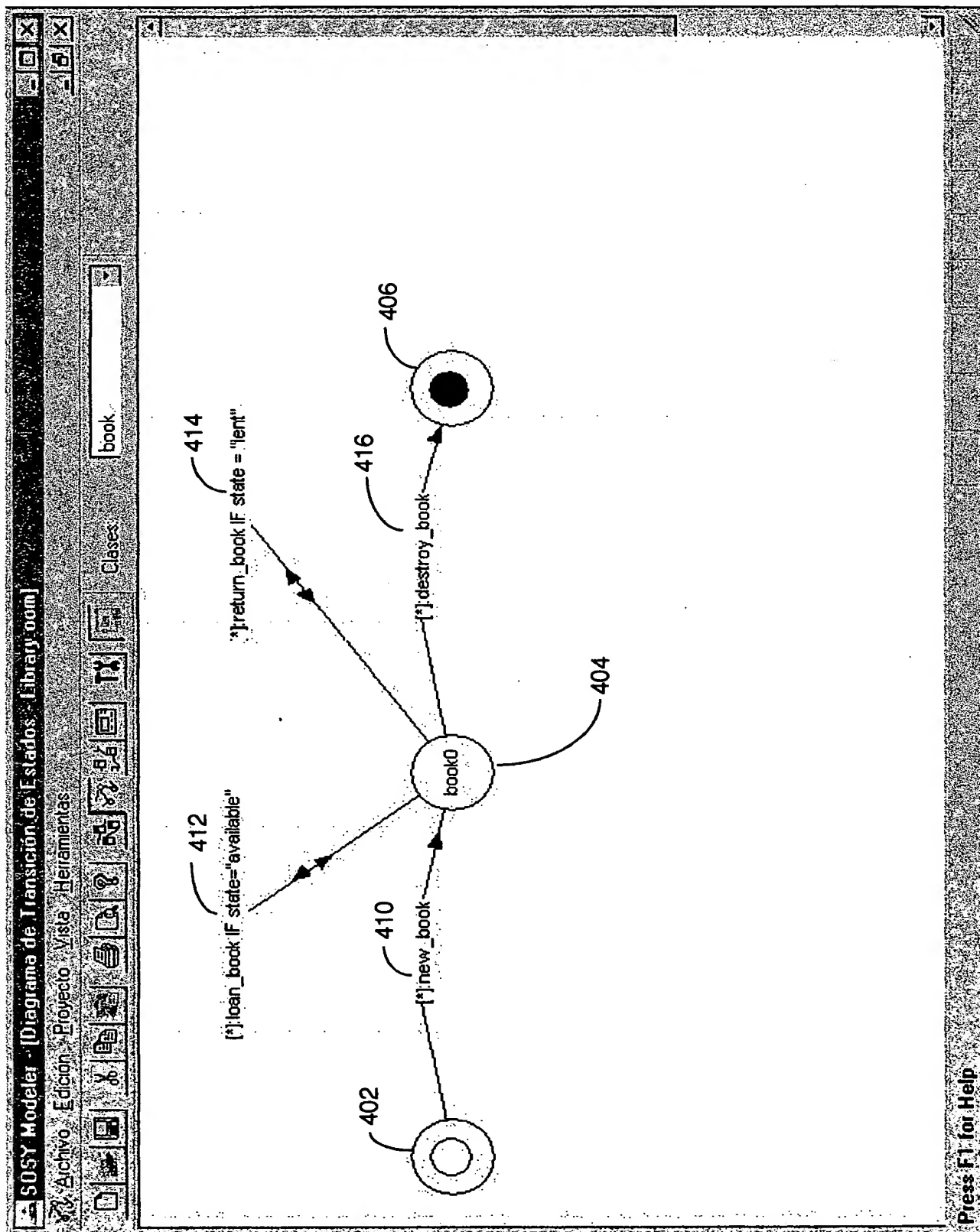


FIG. 3

FIG.  
4A



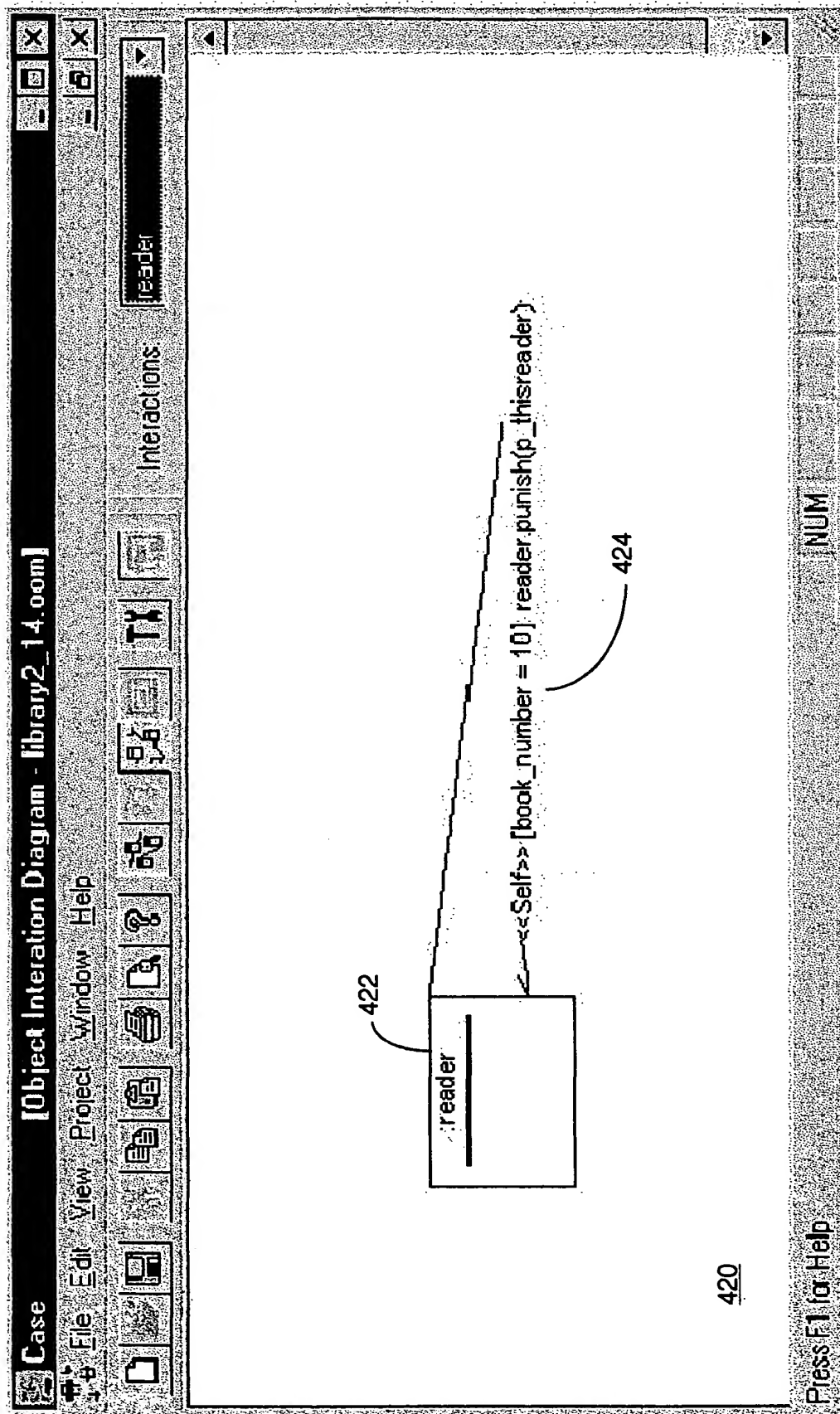


FIG. 4B

Functional Model

Class:  Attribute:

Event:  Effect:  Condition:

Category: ☒ Push-pop ☐ State-independent ☐ Discrete-domain

Valuation Details

Event:  Action type:

Valuation condition:

Effect of the event:

Ok Cancel Add Modify Delete

FIG. 5

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES OF SYSTEM LOGIC  
TRANSLATORS WILL PREFORM

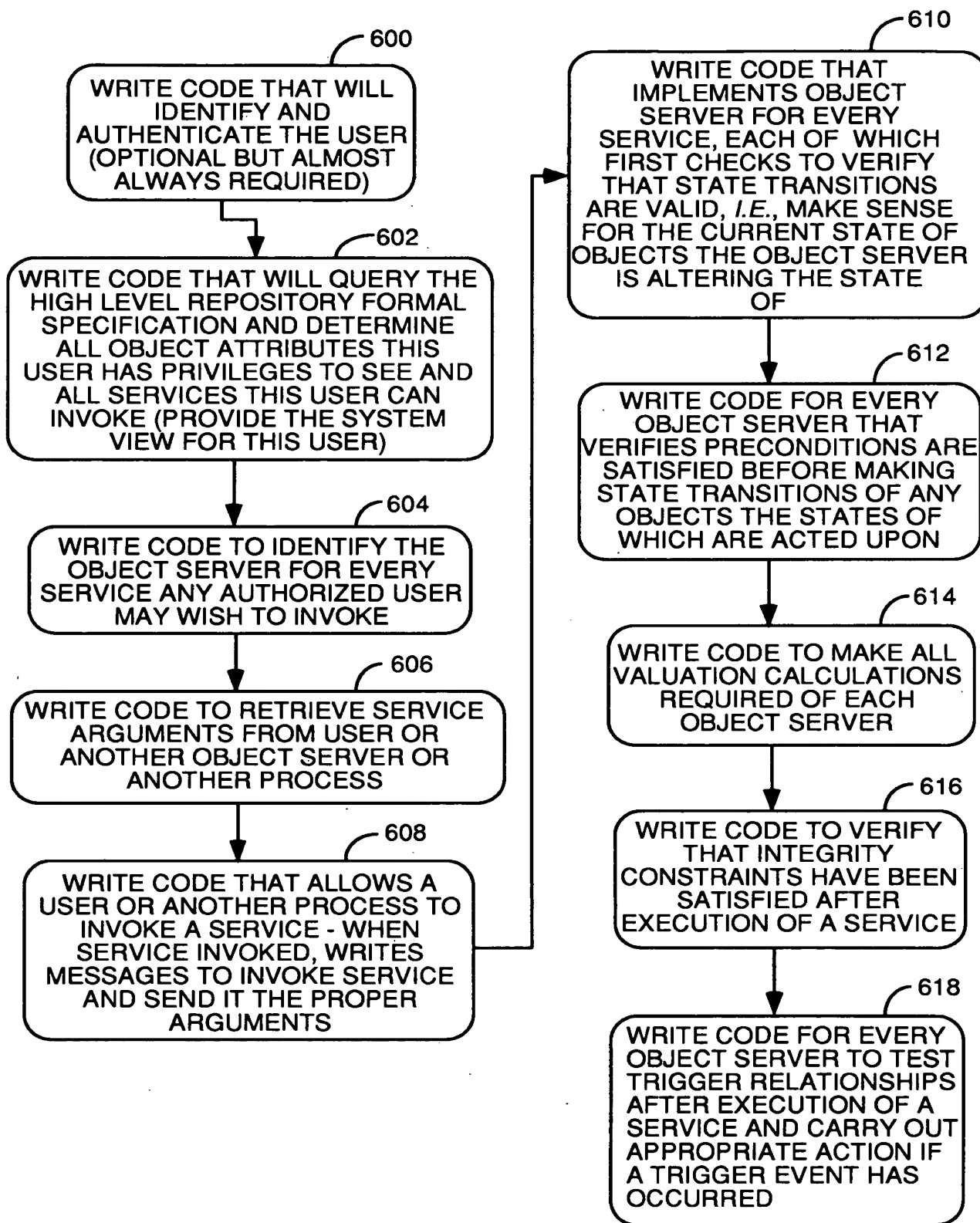


FIG. 6

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE USER INTERFACE  
TRANSLATOR SUBGENUS WILL PREFORM

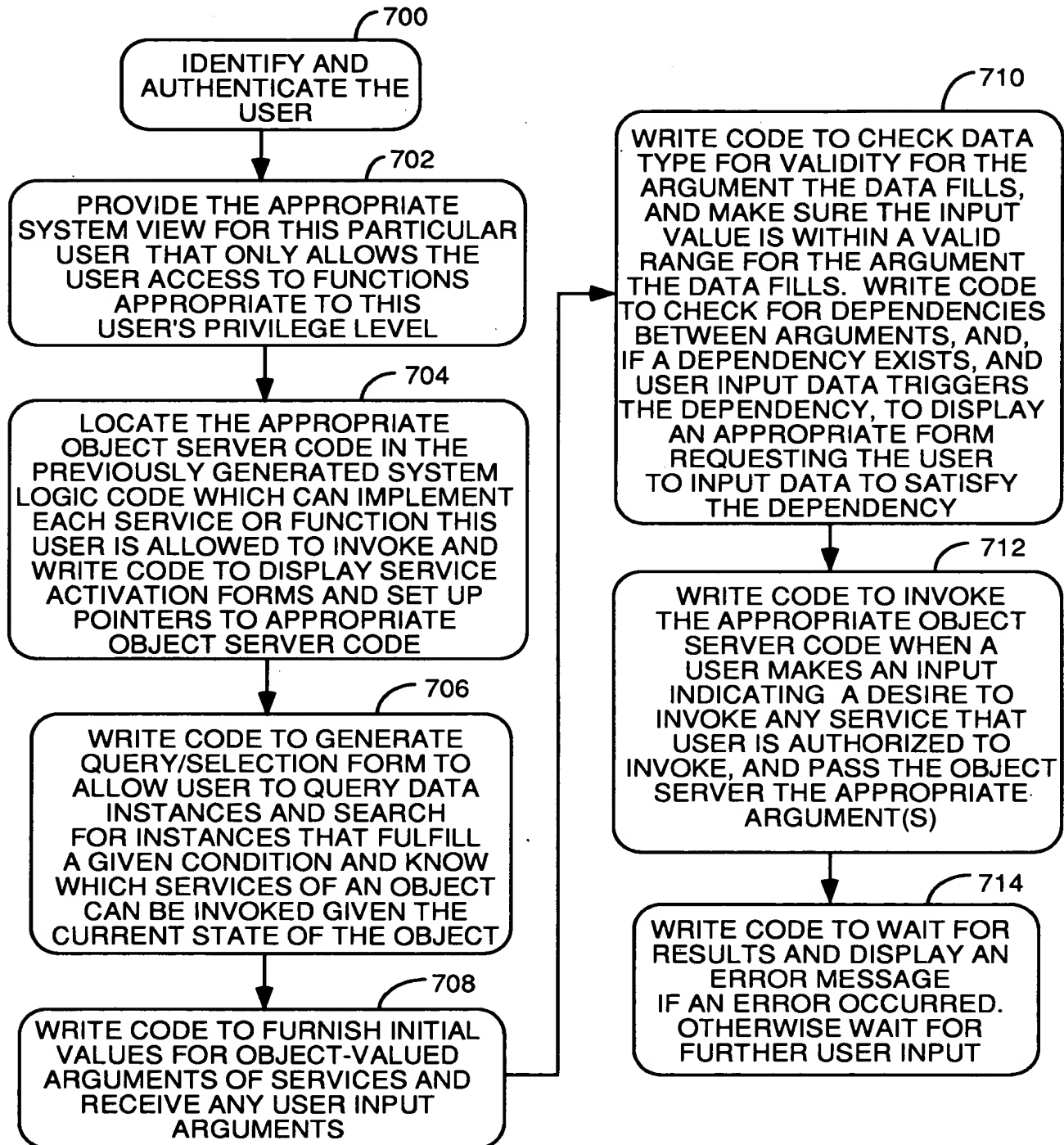


FIG. 7



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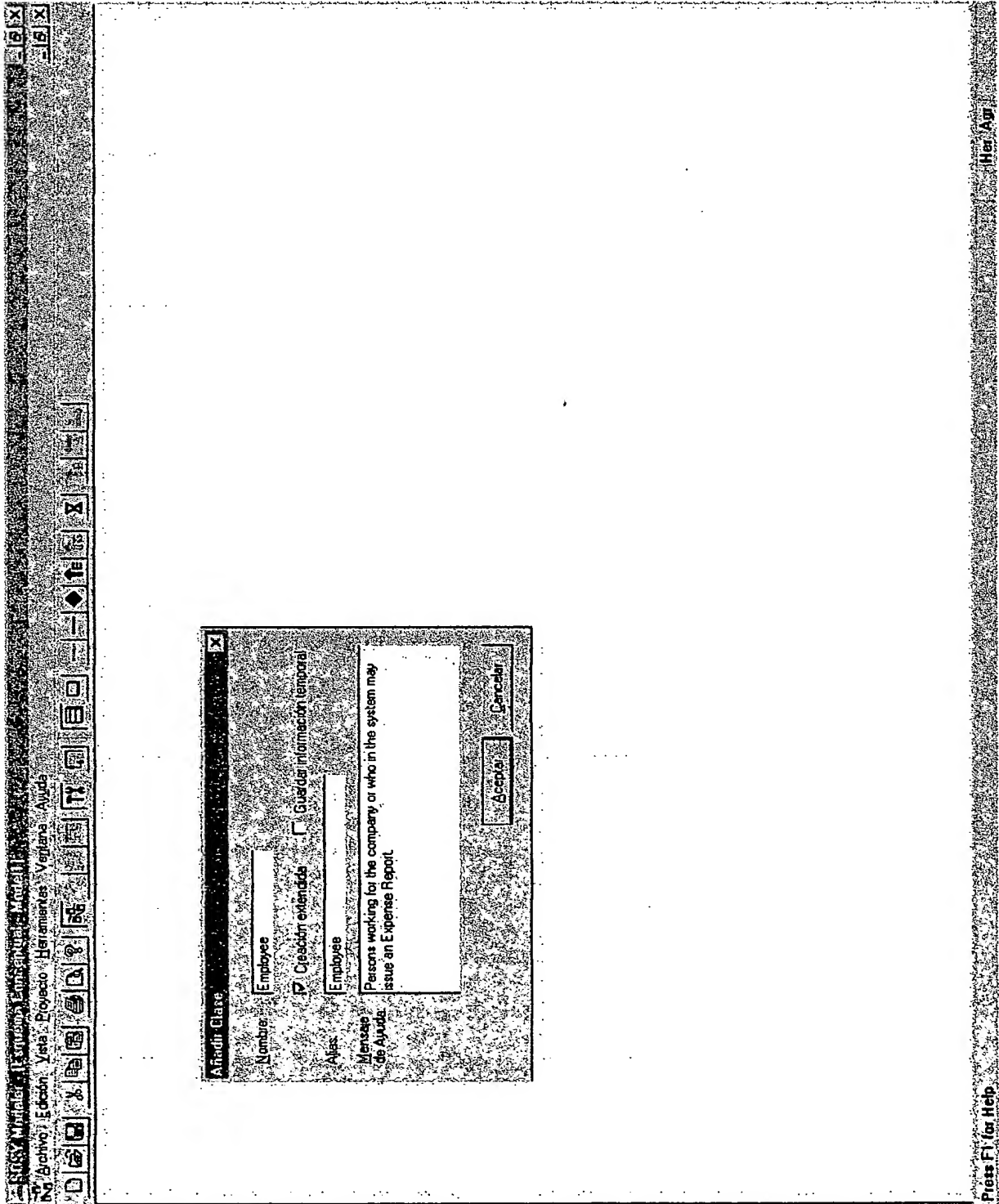


FIG. 8

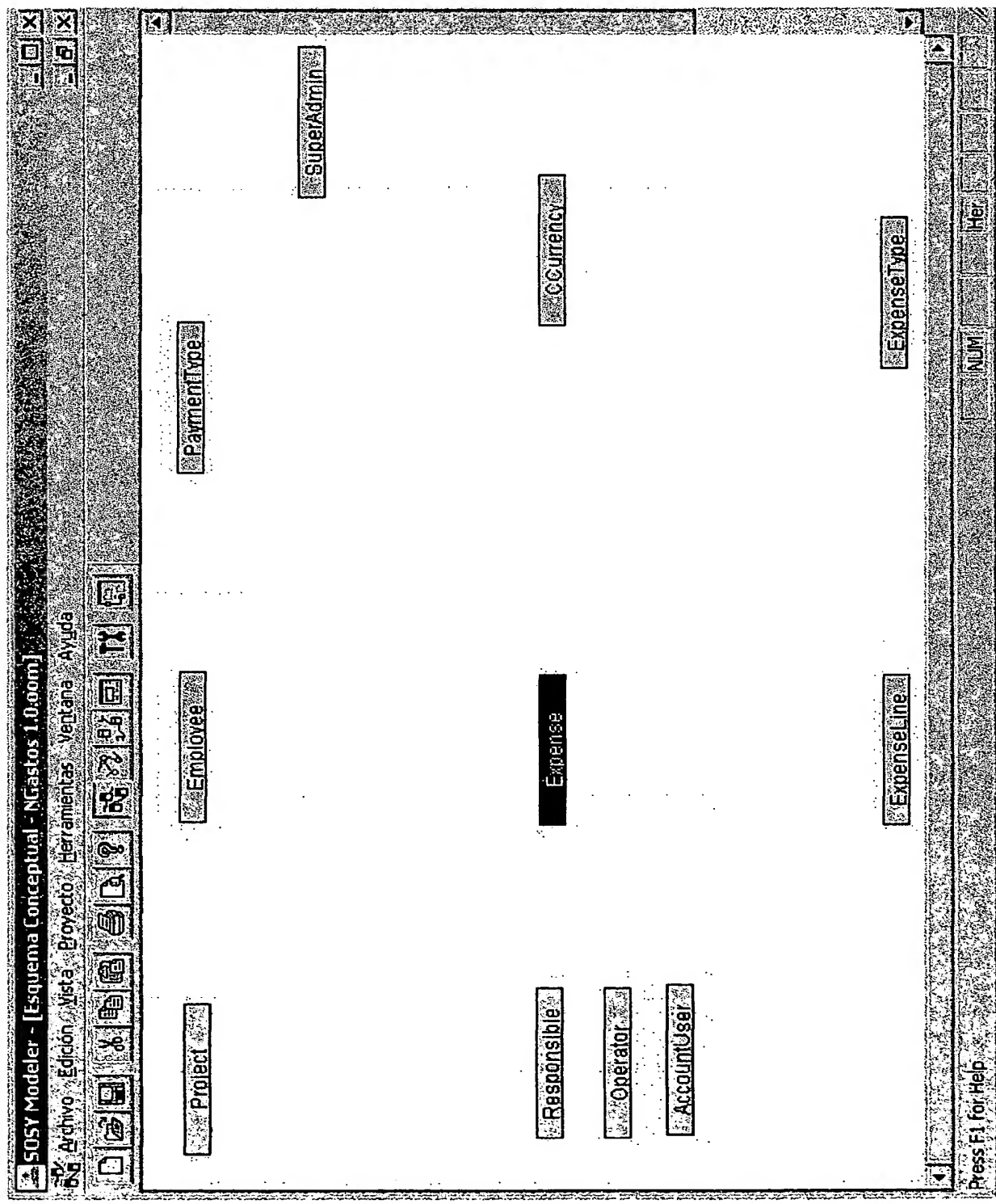
1010101 "ETH2660"

CLASS CREATION  
DIALOG

FIG. 9A



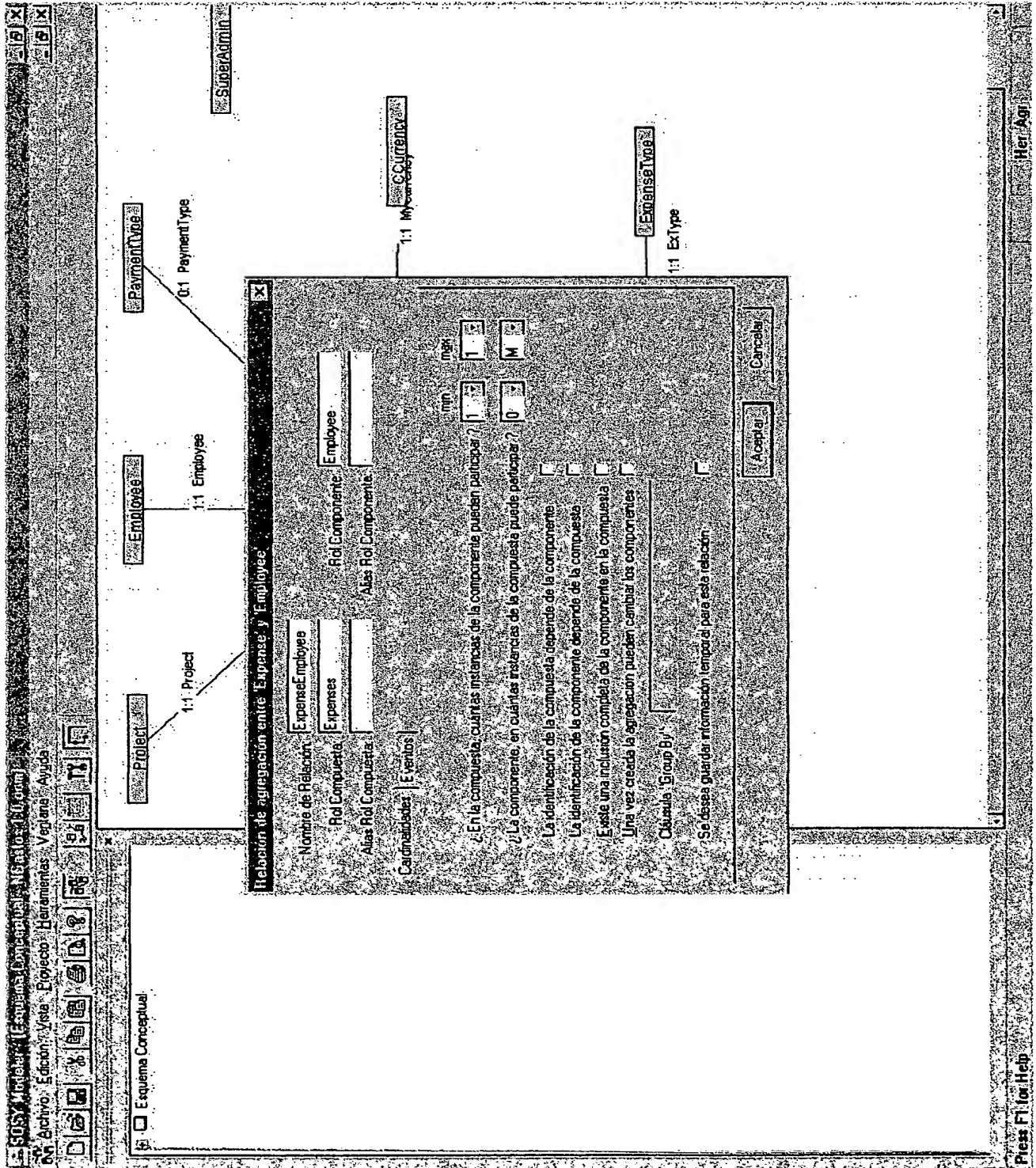
FOOT" ET 2860



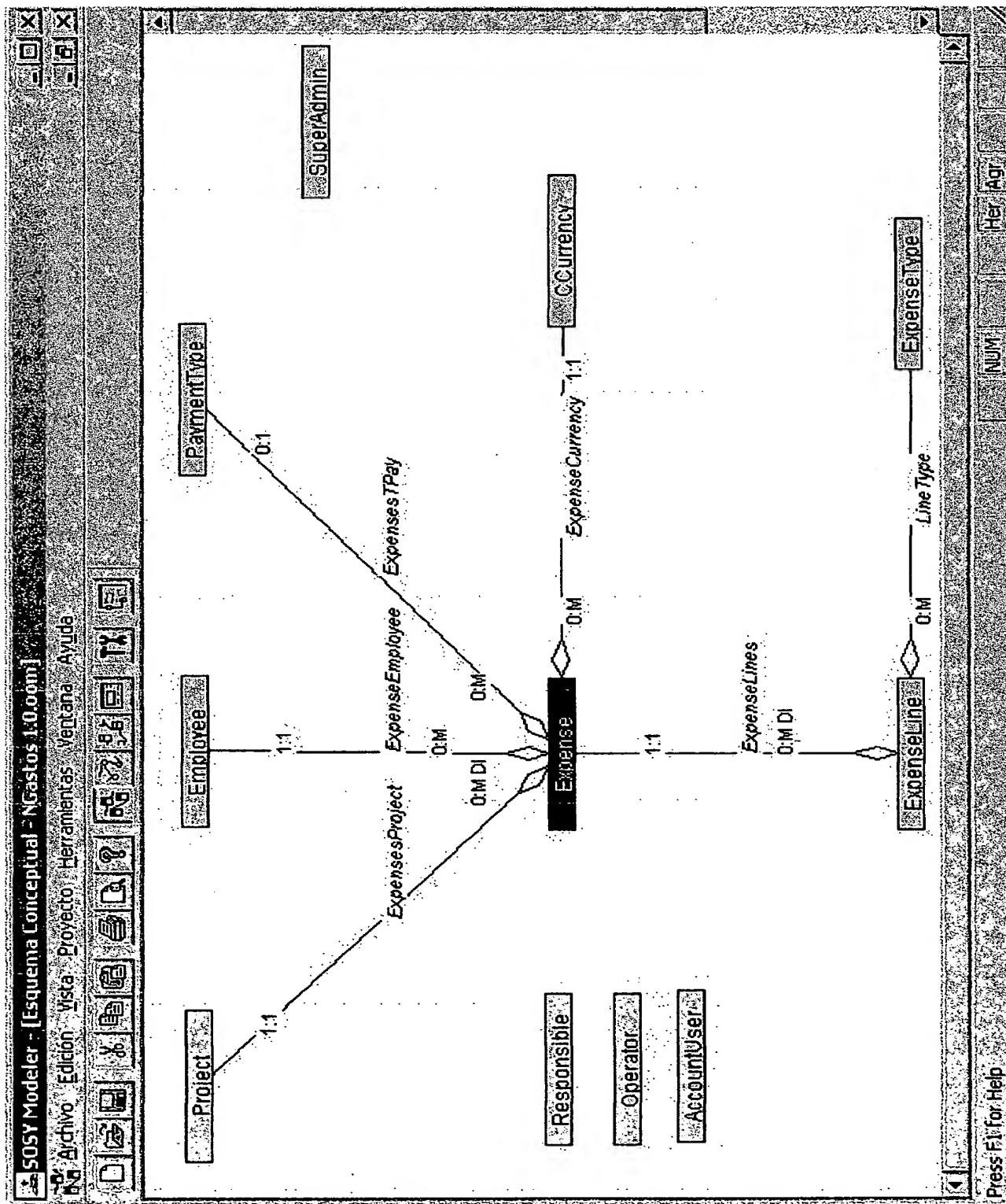
ALL CLASSES  
NEEDED AND  
CREATED IN  
EXPENSE  
MANAGEMENT  
SYSTEM

FIG. 9B

FIG. 9C



101001"ETH2860



GRAPHIC DIALOG  
TO CREATE  
RELATIONSHIPS  
BETWEEN  
CLASSES AND  
GRAPHICALLY  
SHOW THE  
RELATIONSHIPS  
SO CREATED

FIG. 10

Clase

Atributos

Servicios

Derivaciones

Restricciones

Agentes

Transacciones

Relaciones

Generalidades

Atributos

Nombre	Tipo atributo	Tipo dato	Id	Tamaño	Valor defecto	Pedir al crear	Nulos
PresentDate	Constante	Date			today()	Si	No
Status	Variable	Int			0	No	No
Cause	Variable	String		255		Si	No
AuthoDate	Variable	Date			NULL	No	Si
AuthoComments	Variable	String		255	NULL	No	Si
PaymentDate	Variable	Date			NULL	No	Si
PayComments	Variable	String		255	NULL	No	Si
TotExpenses	Derivado	Real					
TotExpensesCur	Derivado	Real					
Advances	Variable	Real			0	Si	No
AdvancesCur	Derivado	Real					
Exchange	Variable	Real				No	Si
Balance	Derivado	Real					
BalanceCur	Derivado	Real					

Añadir

Modificar

Borrar

Nombre

Tipo Atributo

Tipo Dato

Alias

Observaciones

Limpiar

Notas>>

☐ Información Temporal

Clase

Expense

Aceptar

Cancelar

FIG. 11A



FIG. 11B

AUTOMATIC SOFTWARE PRODUCTION SYSTEM  
INVENTOR: IBORRA AND PASTOR  
SERIAL NO. 09/872,413  
FILING DATE: 06/01/01  
DOCKET NO. CHG-001.1P

Clase

Atributos Servicios Derivaciones Restricciones Agentes Transacciones Relaciones Generalidades

Atributo Balance

Fórmulas de Derivación

Condición	Fórmula
	TotExpenses - Advances

Añadir Modificar Borrar

Condición

Fórmula

Observaciones

Clase: Expense

Aceptar Cancelar

FIG. 11B

[illegible]



Clase

Atributos | Servicios | Derivaciones | Restricciones | Agentes | Transacciones | Relaciones | Generalidades

Transacción: **DELETEALL**

Fórmula

FOR ALL Lines DO Lines.deleteIn(Lines) : deleteExpense(THIS)

Acción

Clase/Rol

Expense

Agentes

Servicio

Parámetros

Inicializar

approve

p\_thisExpense

Detalles

Crear Parámetro en la Transacción

Observaciones

Clase: **Expense**

Aceptar Cancelar

or and action

DIALOG TO DEFINE  
FORMULA FOR  
"DELETEALL"  
TRANSACTION

FIG. 13

Clase

Altritos

Servicios

Deinvecciones

Restricciones

Agentes

Transacciones

Relaciones

Generalidades

Estáticas

Exchange > 0

Añadir

Modificar

Borrar

Heredadas

Fórmula

Exchange > 0

Mensaje De Error

Exchange must be greater than zero

Dinámicas

Oper. Temporal

Condicion1

Oper. Temporal

Condicion2

Fórmula

Mensaje De Error

Añadir

Modificar

Borrar

Clase:

Expense

Aceptar

Cancelar

INTEGRITY  
CONSTRAINTS OF  
EXPENSE CLASS

FIG. 14

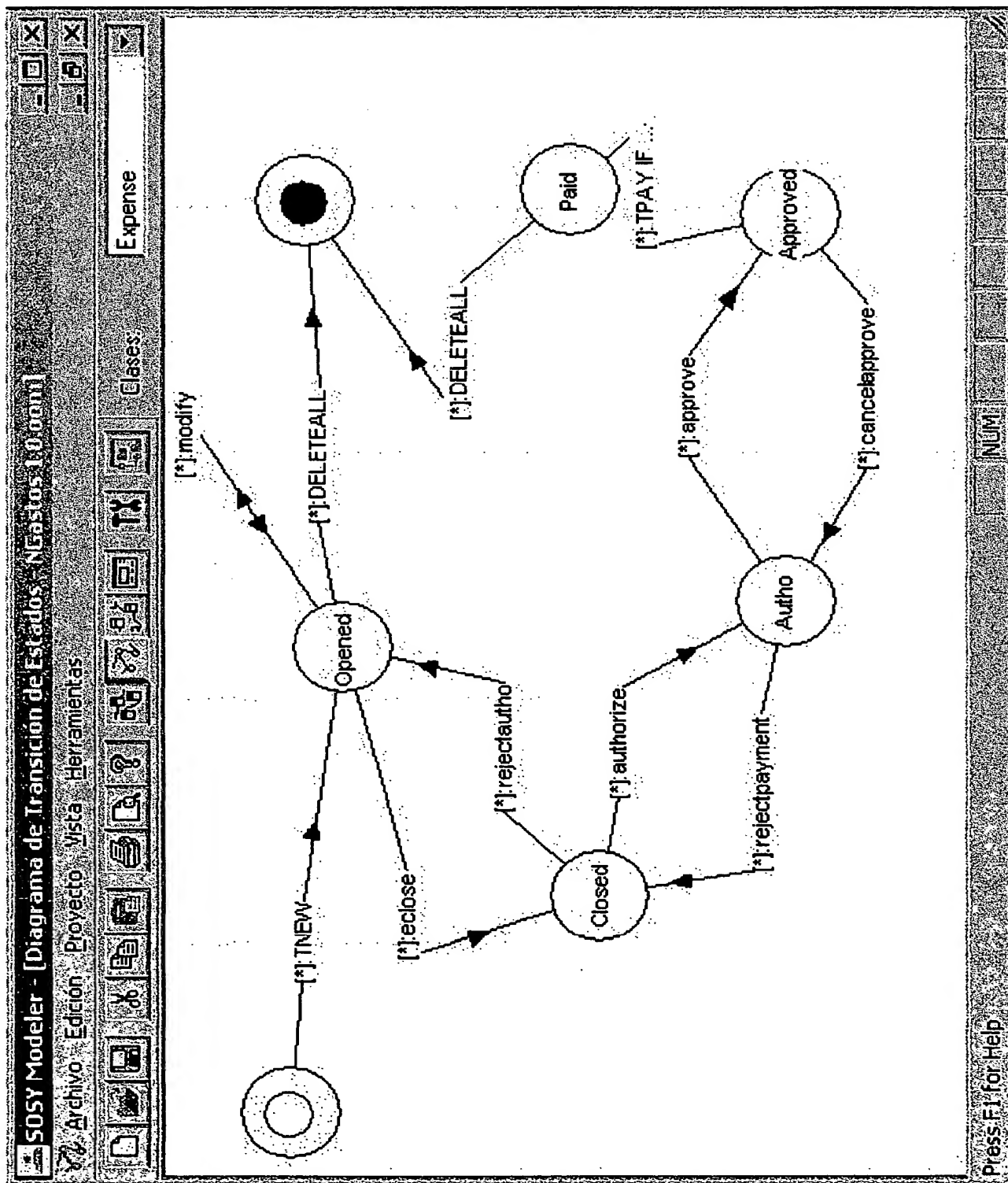
**DIALOG BOX TO CREATE  
EVALUATION OF "CAUSE"  
ATTRIBUTE WITH THE "MODIFY"  
EVENT TO FORM PART OF  
FUNCTIONAL MODEL**

**FIG. 15**



AGENT RELATIONSHIP  
DIALOG THAT CAN BE  
USED TO SET WHICH  
SERVICES "ACCOUNT  
USE" CAN ACCESS  
AND VISIBILITY OF  
CLASS ATTRIBUTES  
FOR THIS USER

**FIG. 16**



STATE TRANSITION  
 DIAGRAM FOR  
 CLASS "EXPENSE"

FIG. 17

TPAY"ETH2860

**Transición**

**Origen:**  **Destino:**

**Aceptar** **Cancelar**

**Detalles**

**Agentes:**

**Servicio:**

**Precondición:**

**Condición de control:**

**Mensaje en caso de Error:**

DIALOG BOX TO  
MODEL  
PRECONDITION

FIG. 18

Conjunto de Visualización

Nombre: CV\_Expense

Limpiar

Borrar

Atributos a visualizar:

Atributo	Tipo dato
Project.ProjectName	String
Employee.EmpName	String
Employee.EmpSur...	String
Status	Int
AuthoDate	Date
PaymentDate	Date
TotExpenses	Real
Balance	Real

<< Añadir

Eliminar >>

Subir

Bajar

Agregar

Atributos:

Atributo	Tipo dato
Cause	String
AuthoDate	Date
AuthoComments	String
PaymentDate	Date
PayComments	String
TotExpenses	Real
TotExpensesCur	Real
Advances	Real
AdvancesCur	Real
Exchange	Real
Balance	Real
BalanceCur	Real

Clase: Expense

Aceptar

Cancelar

DIALOG BOX USED BY  
SOSY MODELER  
TO ESTABLISH A SET OF  
ATTRIBUTES  
TO BE DISPLAYED FOR  
THE "EXPENSE" CLASS

FIG. 19



Filtro

flt\_Expense

Alias

Expense Reports

Borrar

Fórmula

Project = vf\_Project AND Employee = vf\_Employee AND PresentDate >= vf\_DateIniIssue AND PresentDate <= vf\_DateEndIssue AND AuthoDate >= vf\_DateIniApp AND AuthoDate <= vf\_DateEndApp AND PaymentDate >= vf\_DateIniPay AND PaymentDate <= vf\_DateEndPay AND

<<<Variable

Observ.

Variables

Nombre	Alias	Tipo dato	Tipo estilo	Estilo	Nueva	Modificar	Borrar
vf_Project	Project	Project	Sel. Población				
vf_Employee	Employee	Employee	Sel. Población				
vf_DateIniIssue	Initial Issuing Date	Date					
vf_DateEndIssue	Final Issuing Date	Date					
vf_DateIniApp	Initial Approving Date	Date					

Tipo

Simple

Objeto-valorado

Nombre

Alias

Tipo de dato

Estilo de introd.

Estilo de selección

Clase Expense

Aceptar

Cancelar

DIALOG BOX USED BY  
SOSY MODELER  
TO ESTABLISH THE  
SEARCHING CRITERIA  
FOR THE EXPENSE  
CLASS AND TO ESTABLISH  
THE FILTER FORMULA  
TO USE AND THE  
VARIABLES TO REQUEST  
THE USER TO ENTER

FIG. 20



FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE  
DOCUMENTATION GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

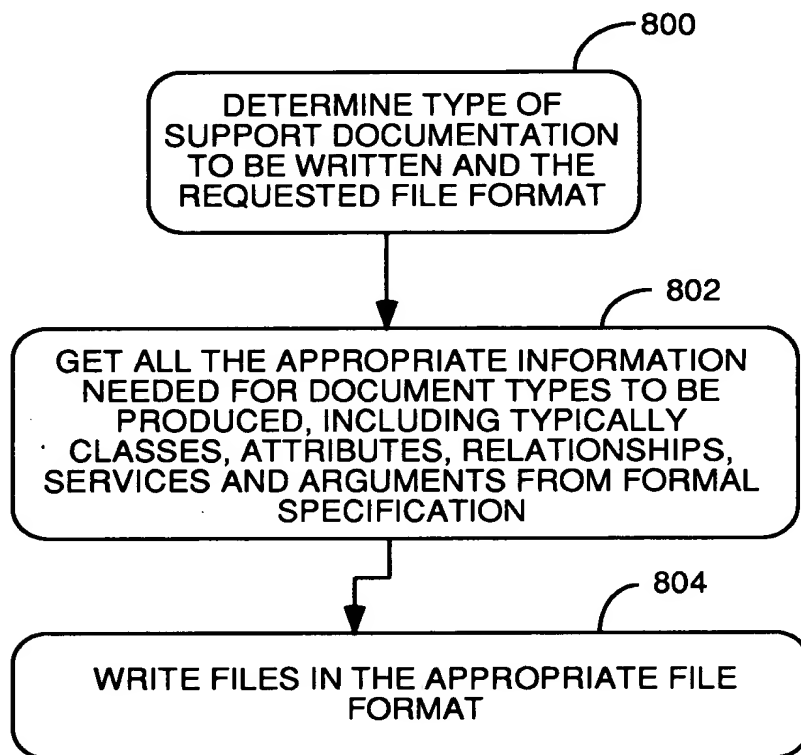


FIG. 21